

What is claimed is:

- 1 1. A combination of gateways using wireless application protocol (WAP) for
2 mediating between a mobile device and network resources, comprising:
3 a plurality of gateways connecting to said network and having access to said
4 network resources; and
5 a computer apparatus connecting to said gateways in parallel
6 for receiving a message from said mobile device;
7 for forwarding said message for further processing to one of said gateways
8 that is selected according to a predetermined rule;
9 for receiving the response of said selected gateway to said message; and
10 for forwarding said response to said mobile device.
- 1 2. The combination of gateways according to claim 1, wherein the network
2 utilizes hypertext transfer protocol (HTTP).
- 1 3. The combination of gateways according to claim 1, wherein said network
2 resources reside in a server.
- 1 4. The combination of gateways according to claim 1, wherein said computer
2 apparatus connects to each of said gateways through a plurality of ports
3 respectively.
- 1 5. The combination of gateways according to claim 1, wherein said computer
2 apparatus dynamically creates a full-duplex channel linking said mobile device
3 and said selected gateway when said message is connection-oriented.
- 1 6. The combination of gateways according to claim 1, wherein said computer
2 apparatus creates a half-duplex channel linking said mobile device and said
3 selected gateway when said message is connectionless.
- 1 7. The combination of gateways according to claim 1, wherein said rule is based
2 on a comparison between the service loadings of each of said gateways.

1 8. The combination of gateways according to claim 1, wherein said rule is to
2 select for said message the least loaded one of said gateways.

1 9. The combination of gateways according to claim 1, wherein said gateways
2 are preferably low-priced personal computers.

1 10. A method for integrating a plurality of gateways that mediate between a
2 mobile device utilizing first transmission protocol and network resources utilizing
3 second transmission protocol, comprising:

4 providing said gateways connecting to said network and having access to said
5 network resources; and

6 providing a computer apparatus connecting to said gateways in parallel

7 for receiving a message from said mobile device;

8 for forwarding said message for further processing to one of said gateways
9 that is selected according to a predetermined rule;

10 for receiving the response of said selected gateway to said message; and

11 for forwarding said response to said mobile device.

1 11. The method according to claim 10, further comprising providing a plurality of
2 ports through which said computer apparatus connects to each of said
3 gateways respectively.

1 12. The method according to claim 10, wherein said rule is based on a
2 comparison between the service loadings of each of said gateways.

1 13. The method according to claim 10, wherein said rule is to select the least
2 loaded gateway among said gateways.

1 14. The method according to claim 10, wherein said gateways are preferably
2 low-priced personal computers.

1 15. The method according to claim 10, wherein said first transmission protocol
2 is wireless application protocol (WAP).

1 16. The method according to claim 10, wherein said second transmission
2 protocol is hypertext transfer protocol (HTTP).

1 17. A method for operating a plurality of gateways connecting in parallel to a
2 computer apparatus that mediate, as one gateway, between a mobile device
3 utilizing first transmission protocol and network resources utilizing second
4 transmission protocol, comprising:

5 providing on said computer apparatus hardware and software components

6 for receiving a message from said mobile device;

7 for forwarding said message for further processing to one of said gateways
8 that is selected according to a predetermined rule;

9 for receiving the response of said selected gateway to said message; and

10 for forwarding said response to said mobile device.

1 18. The method according to claim 17, wherein said rule is to select the least
2 loaded gateway among said gateways.

1 19. The method according to claim 17, wherein said gateways are preferably
2 low-priced personal computers.

1 20. The method according to claim 17, wherein said first transmission protocol
2 is wireless application protocol (WAP).